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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/602,780 | 06/24/2003 | Keith G. Buzzell | 05918-110003 | 1725 |
| 26161 | 7590 | 08/05/2004 | EXAMINER | |
| FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110 | | | EASHOO, MARK | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1732 | |

DATE MAILED: 08/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------|--------------------------------|--|
| Office Action Summary | Application No. 10/602,780 | Applicant(s) BUZZELL ET AL. | |
| | Examiner Mark Eashoo, Ph.D. | Art Unit 1732 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 60-90 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 60-74 and 76-90 is/are rejected.
- 7) ☒ Claim(s) 75 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>9/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 82-84 are rejected under 35 U.S.C. 102(b) as being anticipated by Brumlik (US Pat. 4,001,366).

Regarding claims 82 and 84

Brumlik teaches the claimed process of producing a composite fastener, comprising: forming a continuous sheet product of first and second resin materials (Fig. 8 and 6:34-45) having fasteners protruding from at least one side of the web (Figs. 8 and 11); and permanently stretching the web on the bias (4:24-31). It is noted that since the "bias direction" is not specifically defined, it is noted that Fig. 2 depicts cuts (elements b and c) on a bias with respect to the extrusion direction. Since Brumlik also teaches stretching about parallel and perpendicular to the cuts, it is inherent that stretching in a bias/diagonal direction is also taught at least with respect to the orientation of cut fastener elements.

Regarding claim 83:

Brumlik teaches fastener/gripping means formed of a single material (Fig. 8).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 60-74 and 76-81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brumlik (US Pat. 4,001,366) in view of Bardy (US Pat. 5,453,238).

Regarding claim 60: Brumlik teaches the basic claimed process of producing a composite fastener, comprising: forming a continuous sheet product of first and second resin materials (Fig. 8 and 6:34-45) having a continuous web (Fig. 11); molding an array of fastener stems from at least one of the resin materials wherein the stems extend from one broad surface of the web (Fig. 8 and 6:34-45); and permanently stretching the web (4:24-31).

Brumlik does not teach the use of a rotary mold roll to form a profiled composite sheet product. However, Bardy teaches a rotary mold roll to form a profiled composite sheet product (Fig. 1). Brumlik and Bardy are combinable because they are both concerned with a similar technical difficulty, namely forming profiled composite webs. At the time of invention a person having ordinary skill in the art would have found it obvious to have used a rotary mold roll, as taught by Bardy, in the process of Brumlik, and would have been motivated to do so since Bardy suggests that such mold roll assure great uniformity and precision of extruded products (3:64-68).

Regarding claim 61: It is inherent that the physical act of forcing a polymeric material through a die as in Brumlik as well as passing it the material through a roll nip creates at least some flow induced molecular orientation. It is noted that applicant has not claimed the degree of molecular orientation.

Regarding claims 62 and 66-68: Brumlik teaches forming a stem of a first material (Fig. 8, element 34 and 6:34-45) and integrally molded, hook-shaped, engageable heads on the stems (Figs. 2 and 11).

Regarding claims 63 and 64: Brumlik teaches forming different portions of a fastener element from different plastics each having different stiffnesses (6:34-45). As such, it is inherent that these different plastics have different melting points and glass transition temperatures.

Regarding claim 65: Brumlik teaches stretching/expanding in both parallel and perpendicular directions (4:39-48).

Regarding claims 69-74: Brumlik does not teach heating a web from a side opposite that of the side having the fastener elements thereon. Nonetheless, heating a web from a side opposite that of the side having the fastener elements thereon is well known in the molding art. For example, temperature controlled water-baths, oil bath-baths, and IR heating are well known methods of

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heating traveling webs for stretching or drawing. At the time of invention would have found it obvious to have heated a web from a side opposite that of the side having the fastener elements thereon, as commonly practiced in the art, in the process of Brumlik, and would have been motivated to so in order to maintain optimum temperature of the web for drawing/stretching without damaging the fastener elements.

Regarding claims 76-78:

Brumlik teaches resin materials that are in an overlapped condition, in a fastener product (Fig. 8). Bardy teaches resin materials which are overlapped while between mold rolls while one material contacts a profiled roller (Fig. 1, element 8) and essentially supports a second resin against or isolated from the profiled roll. Brumlik and Bardy would have been combined with each other for the same reasons as set forth above.

Regarding claims 79-81:

Brumlik teaches resin materials that are in an overlapped condition, in a fastener product (Fig. 8) and therefore would inherently require extrusion from distinct portions of a die. Nonetheless, Bardy teaches resin materials which are overlapped and extruded from distinct apertures (Fig. 1) and essentially joins the material streams between the rolls. Brumlik and Bardy would have been combined with each other for the same reasons as set forth above.

Claims 85-90 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brumlik (US Pat. 4,001,366) in view of Bardy (US Pat. 5,453,238).

Regarding claims 85-86:

Brumlik teaches the basic claimed process of producing a composite fastener, comprising: forming a continuous sheet product of first and second resin materials (Fig. 8 and 6:34-45) having fasteners protruding from at least one side of the web (Figs. 8 and 11); and permanently stretching the web on the bias (4:24-31). It is noted that since the "bias direction" is not specifically defined, it is noted that Fig. 2 depicts cuts (elements b and c) on a bias with respect to the extrusion direction. Since Brumlik also teaches stretching about parallel and perpendicular to the cuts, it is inherent that stretching in a bias/diagonal direction is also taught at least with respect to the orientation of cut fastener elements.

Brumlik does not teach the use of a rotary mold roll to form a profiled composite sheet product. However, Bardy teaches a rotary mold roll to form a profiled composite sheet product (Fig. 1). Brumlik and Bardy are combinable because they are both concerned with a similar technical difficulty, namely forming profiled composite webs. At the time of invention a person having

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ordinary skill in the art would have found it obvious to have used a rotary mold roll, as taught by Bardy, in the process of Brumlik, and would have been motivated to do so since Bardy suggests that such mold roll assure great uniformity and precision of extruded products (3:64-68).

Brumlik teaches resin materials that are in an overlapped condition, in a fastener product (Fig. 8). Bardy teaches resin materials which are overlapped while between mold rolls while one material contacts a profiled roller (Fig. 1, element 8) and essentially supports a second resin against or isolated from the profiled roll. Brumlik and Bardy would have been combined with each other for the same reasons as set forth above.

Regarding claims 88-90: Brumlik teaches resin materials that are in an overlapped condition, in a fastener product (Fig. 8) and therefore would inherently require extrusion from distinct portions of a die. Nonetheless, Bardy teaches resin materials which are overlapped and extruded from distinct apertures (Fig. 1) and essentially joins the material streams between the rolls. Brumlik and Bardy would have been combined with each other for the same reasons as set forth above.

Allowable Subject Matter

Claim 75 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not teach or render obvious stretching a web while in a heated bath and having fasteners substantially exposed to air (ie. fasteners are not submerged). It is noted that typical stretching of webs in a heated liquid bath completely submerge the entire web.

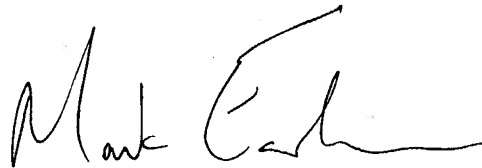
Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Eashoo, Ph.D. whose telephone number is (571) 272-1197. The examiner can normally be reached on 7am-3pm EST, Monday - Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mark Eashoo, Ph.D.
Primary Examiner
Art Unit 1732

3 August 2004
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